

**Notice of Allowability**

Application No.

10/725,557

Examiner

Tuan T. Nguyen

Applicant(s)

MOORE ET AL.

Art Unit

2824

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Election/Restriction Response filed on 10/17/05.
2. ☒ The allowed claim(s) is/are 1-17.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some\* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),  
Paper No./Mail Date 10/18/04 and 03/04
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☒ Other search history printout.

  
1/6/05

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## **DETAILED ACTION**

### ***Election/Restrictions***

1. Applicant's election without traverse of claims **1-27** in the reply filed on 10/17/05 is acknowledged.
2. Claims have been withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 10/17/05.

### ***Information Disclosure Statement***

3. The information disclosure statement (IDS) submitted on 10/18/04 and 03/04/04 were filed after the mailing date of the present application on 12/03/03. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

## **EXAMINER'S AMENDMENT**

The application has been amended as follows:

Cancel claims **28-41**.

Claim 1, line 3, change "**a substrate**" to -- **the substrate** --

Claim 1, line 8, change "**variable state**" to -- **variable-state** --

### ***Allowable Subject Matter***

4. Claims **1-27** are allowed.
5. The following is an examiner's statement of reasons for allowance:

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The prior art of record (Kawazoe et al. US 2005/0151277; Iwase et al. US 2004/0233726; Matuoka US 2004/0114444 and Toyoda et al. US 6,847,543) fail to disclose a memory device comprising, in combination with other cited limitations, a variable-state electronic device disposed at a third level above said first level, said variable state electronic device electrically coupled to said switching device to switchingly receive said signal therefrom as recited in claim 1.

Claims 2-14 are therefore allowed because of their dependency on claim 1.

The prior art of record also fail to disclose a memory device comprising, in combination with other cited limitations, a resistance variable material disposed between the first electrode and the second electrode as recited in claims 15 and 21.

Claims 16-17 are therefore allowed because of their dependency on claim 15.

The prior art of record also fail to disclose an electronic device comprising, in combination with other cited limitations, a region of material adapted to exhibit a changed physical property in response to a voltage applied between the first and second electrode as recited in claim 18.

Claims 19-20 are therefore allowed because of their dependency on claim 18.

The prior art of record also fail to disclose a memory device comprising, in combination with other cited limitations, a layer of variable resistance material disposed in a first region between the first and second electrodes and in a second region between the first and second electrodes as recited in claim 22.

Claims 23-27 are therefore allowed because of their dependency on claim 22.

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Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan T. Nguyen whose telephone number is 571-272-1880. The examiner can normally be reached on Monday - Friday, 8AM - 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Elms can be reached on 571-272-1869. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Tuan T Nguyen  
Primary Examiner  
Art Unit 2824

January 6, 2006